

10 tapered intermediate section transitioning without  
intervening discontinuities to a relatively smaller  
diameter tip end, said tip end having an outside diameter  
adapted to be fitted to the hosel of a club head, and said  
tapered intermediate section having a more significant  
taper than both said butt and tip ends.

15 20. The shaft of claim 19 wherein said tip end  
and said butt end include parallel sidewalls.

REMARKS

Re-examination of the above-identified application is respectfully requested. Support for each of the above claim amendments can be found in the Specification on page 6, line 10, and Figs. 5 and 7.

The disclosure is objected to as the Examiner alleges that the difference between Moment 6 and Moment 10 is unclear. Applicants have amended the Specification to address this informality and respectfully request withdrawal of the rejection. Applicants believe the confusion results as Figure 2A--a view of the front face--and Figure 3--a view of the toe--were not previously clarified.

Claim 4 is rejected under 35 U.S.C. §112, second paragraph. Applicants have deleted claim 4 rendering this rejection moot.

Claims 1-3 are rejected under 35 U.S.C. §102(b) as being anticipated by Akatsuka. Applicants respectfully traverse.

Applicants note that claim 1 has been amended to require that at least one cross-sectional portion of the butt has a diameter of about .460 inches, corresponding to approximately 11.7 centimeters. With reference to column 5, lines 62-68, the minimum possible diameter taught by Akatsuka is 12.5 millimeters. Accordingly, Akatsuka teaches a larger diameter butt section of a shaft.

In addition, with respect to claims 7 and 13, Applicants note that the closest possible point of overlap

with the presently claimed butt diameter is only achieved by selecting the minimum possible inside diameter of the club shaft and the minimum wall thickness of the shaft. In this regard, Akatsuka includes a very broad range for these characterizations. More specifically, if the maximum point of each range is selected, the butt diameter is approximately 0.730 inches. Nearly twice as thick as the presently claimed invention. In addition, Applicants note that the preferred range of Akatsuka would result in a butt diameter between .547 and .650 inches. Accordingly, Akatsuka teaches the skilled artisan that a butt section of the shaft much larger than claimed by Applicant should be employed. Therefore, there is no suggestion in Akatsuka to use butt which has a diameter in a range of .400 to .560 inches. In view of the above, withdrawal of the rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. §103(a). Applicants have canceled Claim 4 rendering this rejection moot.

Claims 5, 7-9 and 11 are rejected under 35 U.S.C. §103 as being unpatentable over Akatsuka in view of Hogan. Applicants respectfully traverse.

The Examiner relies on Hogan as disclosing a shaft having a butt end with a cylindrical cross section. The Examiner then concludes that it would have been obvious to have a butt end having a cylindrical cross section in order to have a stiffer butt section and a lower kick point to obtain more elevation when hitting the ball with the same swing. Applicants respectfully traverse.

Applicants note that a significant limitation in the present claim language (claims 7 and 13) is the requirement that the butt end have a diameter from .400 to .560 inches. In this regard, the Examiner has relied on the Akatsuka broad range of a butt end diameter. However, Akatsuka teaches a butt end having a thickness between .490 and .730 inches. In fact, Akatsuka teaches that it is preferable to have a butt end having a thickness

between .547 and .650 inches. Accordingly, Akatsuka teaches a range far in excess of Applicants. Importantly, Applicants note that patentability can exist notwithstanding overlapping ranges. Moreover, when criticality is established by a certain range, patentability arises. In this regard, Applicants invention demonstrates a superior function as a result of the minimum diameter butt section of the shaft (see specification, page 8, line 28-page 9, line 6).

In addition, should the skilled artisan consider Hogan for its teaching of a cylindrical cross-section butt, the skilled artisan is certain to recognize that Hogan teaches an outer diameter at the butt end of 15 millimeters (see column 4, line 38) equating to .591 inches. Interestingly, this diameter is directly in the middle of the Akatsuka preferred range, yet well outside Applicants claimed range. Furthermore, Hogan stresses the importance of creating a strong butt end to induce flexure in the central location. With this specific teaching, the suggested thickness, and the preferred range of the Akatsuka reference, there is no suggestion of Applicants invention. Accordingly, withdrawal of the rejection is respectfully requested.

With respect to the rejections of claims 4, 6, 10 and 12, wherein the Akatsuka and Hogan references are newly combined with Akatsuka '396 and Oseroff, Applicants note that each of these is a dependent claim upon the claims discussed above. Applicants have reviewed Akatsuka '396 and Oseroff and have not identified any suggestion in those references that the butt end of the club shaft be constructed of the thickness claimed by Applicants. Moreover, there is no reason provided by these references to disregard the specific teachings in the primary references and construct a club having the cross sections claimed by Applicants. Accordingly, withdrawal of the rejections is respectfully requested.

Disagree


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In view of the above, Applicants submit that this application is in condition for allowance and such action is respectfully requested.

If any fees are due in conjunction with the filing of this Response, Applicants authorize deduction of those fees from Deposit Account No. 06-0308.

Respectfully submitted,  
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**CERTIFICATE OF MAILING**

I hereby certify that this AMENDMENT UNDER 37 CFR §1.115 is being deposited with the United States Postal Service as first class mail in the envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on this February 17, 1998.

  
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